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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,404	06/12/2006	Simon Richard Daniel	1993-00900	6225

23505 7590 12/17/2009

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EXAMINER	
BROOKS, JERRY L.	

ART UNIT	PAPER NUMBER
2878	

NOTIFICATION DATE	DELIVERY MODE
12/17/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/596,404	DANIEL ET AL.	
	Examiner	Art Unit	
	JERRY BROOKS	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 13-16* is/are rejected.

7)☐ Claim(s) *12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 June 2006* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is a response to argument filed on 07/16/2009.

Acknowledgement

The arguments filed on 0716/2009, responding to the Office Action mailed on 04/16/2009, have been entered. The present Office Action is made with all the arguments being fully considered. Accordingly, pending in this Office Action are claims 1-16.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,3,6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmeister (7,025,466) in view of Chao (US 5442415) and Nashida (6,652,104) and Shirashi et al (6,231,191) an further in view of Reinhard (US 4,257,694) and Badalich (US 4,030,821).

With respect to claim 1, Hoffmeister discloses a projection device (see the casing of fig.1) comprising a lamp body (via the housing the projector 16) consisting of six ***substantially*** faces (fig.1), one of said faces being an adjustable top face lid for the device (see lid 44) , the lid being hinged about one edge of the body (see fig.1) being a

top face lid for the device having an interior mirrored surface (18) capable of reflecting and projecting an image; support structure for supporting an imaging device (36 which holds the projector and thereby hold an imaging device) and parts of an illumination and projection system and, an illumination and projection system consisting of at least one lamp or light- emitting unit and a condensing lens (implicitly disclosed by projector 16).

Hoffmeister does not disclose a plurality of reflecting mirrors, a top face lid to be positionable at a plurality of angles between a closed position and an open perpendicular position and the image being projectable at various angles from vertical to horizontal according to said positioning of the top face lid a moveable condensing lens, at least one moveable condensing lens, an electrical transformer and switch.

Chao discloses a lamp and projection device comprising: a lamp body consisting of six faces (fig.3); one of said faces (17) being a top face lid for the device having an interior mirrored surface (7) capable of reflecting and projecting an image; support structure for supporting an imaging device (see figure 2,19 and see figure 1) and parts of an illumination and projection system (see figure 2); and an illumination and projection system (see figure 2) consisting of at least one lamp or light- emitting unit (1), a plurality of reflecting mirrors (see 12 and 15), and condensing lens (fig. 2,16).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the lamp body of Hoffmeister with the illumination and projection system of Choa to reduce the cost of Hoffmeister's device.

However, Hoffmeister in view of Chao does not explicitly disclose six substantially identical faces assembled to form a cube, at least one moveable

condensing lens, an electrical transformer and switch and a top face lid to be positionable at a plurality of angles between a closed position and an open perpendicular position and the image being projectable at various angles from vertical to horizontal according to said positioning of the top face lid.

It would have been obvious to one of ordinary skill in the art to modify the device of Chao with the teaching of Hoffmeister so the lid is hinged about one edge of body to facilitate the transport of Chao's device (col.3, lines 20-25) .

Choa in view of Hoffmeister does not explicitly disclose the top face lid so as to be positionable at a plurality of angles between a closed position and an open perpendicular position, and having an interior mirrored surface capable of reflecting and projecting an image, image being projectable at various angles from vertical to horizontal according to said positioning of the top face lid.

Nishida discloses a projection device comprising a lamp body (by virtue of body the projector 800) a face (348) being an adjustable top face lid for the device (see fig.4 348 and 810) being hinged (810) so as to be positionable at a plurality of angles between a closed position and an perpendicular position and the image being projectable at various angles from vertical to horizontal according to said positioning of the top face lid (again see fig.4).

It would have been obvious at the time of invention to modify the device of Choa in view of Hoffmeister with the disclosure of Nishida to improve the operability of the device by increasing the range of projection.

Choa in view of Hoffmeister and Nishida does not explicitly disclose the lid having an open perpendicular position.

Shirashi discloses a projection device comprising a lamp body (by virtue of body the projector 100) a face (11) being an adjustable top face lid for the device (see fig) , the lid being hinged (see fig.1) so as to be positionable at a closed position (fig.1,11) and an open perpendicular position (fig.2, 11).

It would have been obvious to one of ordinary skill in the art to modify the device of Choa in view of Hoffmeister and Shirashi with the disclosure of Nashida to improve the operability of the device by increasing the range of projection.

However Choa in view of Hoffmeister and Shirashi and further in view of Nashida do not disclose the substantially identical faces forming a cube, at least one movable condensing lens, and an electrical transfer and switch.

Reinhard discloses a lamp and projection device (fig.3) comprising: a lamp body (fig. 3) consisting of a support structure for supporting parts of an illumination (fig.3, 24) and projection system (fig. 3); and an illumination and projection system consisting of at least one lamp (fig.2, 12) or light- emitting unit, a plurality of reflecting mirrors (fig.3; 7, 8) at least one condensing lens (fig.2, 11) and six substantially identical faces assembled to form a cube (column 1, paragraph 1).

It would have been obvious to one of ordinary skill in the art at the time of invention to use Reinhard's disclosure in Hoffmeister in view of Choa and Shirashi and Nashida 's device to make it more compact and reduce manufacturing cost.

Badalich discloses a lamp (fig.3, 28) and projection device (figure 3) comprising: a lamp body (see unnumbered structure containing (28)), a support structure (70, 61,62 and see unnumbered structure containing (28)) for supporting an parts of an illumination and projection system; and an illumination and projection system (see fig. 3) consisting of at least one lamp (28) or light- emitting unit, a plurality of reflecting mirrors (68, 64) at least one movable condensing lens (36) and an electrical transformer and switch (column 3, paragraph 4).

It would have been obvious to one of ordinary skill in the art at the time of invention to apply Badalich 's transformer, switch and movable condensing lens to Hoffmeister in view of Choa and Shirashi and Nashida 's device in view of Reinhard to utilize voltage efficiently (see column 3, paragraph 4) and improve the quality of the projected image.

With respect claim 3, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich discloses the lamp and projection device according to claim 1 as discussed above. Chao further discloses wherein said imaging device is a removable single slide (fig. 2, 3).

With respect claim 6, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich discloses the lamp and projection device according to claim 1 as discussed above, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard does not disclose wherein said faces contain an

internal support structure of struts and grooves for fixing the parts of the illumination system where such grooves support various parts or are not used depending on their rotation and position as a cube face.

Badalich discloses wherein said faces contain an molded support (Badalich: see fig. 3, supporting 70) and grooves (Badalich: see fig.6, supporting 80) for fixing the parts of the illumination system where such grooves support various parts or are not used depending on their rotation and position as a cube face.

It would have been obvious to one of ordinary skill in the art at the time of invention to use Badalich's struts and grooves to strengthen the structure of Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard.

With respect to claim 10, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich discloses the lamp and projection device according to claim 1 as discussed above, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard does not disclose said cube faces contain recessed grooves suitable for being punched through during manufacture or during installation to create holes or grooves suitable for alternative wire exit or for affixing the lamp to a surface or wall.

Badalich discloses wherein said cube faces contain recessed grooves suitable for being punched through during manufacture or during installation to create holes or grooves suitable for alternative wire exit or for affixing the lamp to a surface or wall (Badalich: see fig.6, supporting 80).

It would have been obvious to one of ordinary skill in the art at the time of invention to use Banality's grooves to reduce manufacturing cost.

Therefore it would have been motivated to combine the teachings of Badalich 's disclosure to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard.

Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmeister (7,025,466) in view of Chao (US 5442415) and Nashida (6,652,104) and Shirashi et al (6,231,191) an further in view of Reinhard (US 4,257,694) and Badalich (US 4,030,821) and Gishi et al. (US 6,837,583).

With respect to claim 2, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich the lamp and projection device according to claim 1 as discussed above, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich does not explicitly disclose wherein said six substantially identical faces are modular interlocking faces.

Gishi discloses a projector and lamp body (see figure 3) having modular interlocking faces (see figure 3;12, 11).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Gishi's teaching of modular interlocking surfaces to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich so that said six substantially identical faces are modular interlocking faces to reduce

material cost. Therefore it would have been motivated to apply Gishi's disclosure to Chao's device in view of Reinhard and further in view of Badalich.

With respect to claim 5, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich discloses the lamp and projection device according to claim 1 as discussed above, wherein said faces are identical, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich does not disclose wherein said faces contain recesses and protrusions at opposed edges such that they can be assembled by rotating appropriately and interlocked with similar parts in a cube arrangement.

Gishi discloses a projector and lamp body (see figure 3) faces contain recesses and protrusions at opposed edges (see figure 3;12, 11).

It would have been obvious at the time of invention to one of ordinary skill in the art to combine Gishi's teaching of faces containing recesses and protrusions at opposed edges to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich such that they can be assembled by rotating appropriately and interlocked with similar parts in a cube arrangement to reduce manufacturing cost.

Claim 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmeister (7,025,466) in view of Chao (US 5442415) and Nashida (6,652,104) and

Shirashi et al (6,231,191) an further in view of Reinhard (US 4,257,694) and Badalich (US 4,030,821) and Helot et al. (US 5,823,651).

With respect to claim 4, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich the lamp and projection device according to claim 1 as discussed above, does not explicitly disclose wherein said imaging device is a digital means, such as a transparent LCD panel, LCOS panel, Digital micro-mirror or other digital imaging light engine.

Helot teaches that using a transparent LCD panel in a slide projector. Helot also discloses that by using a transparent LCD panel "a presenter can create a more dynamic presentation using video, graphic animation, enhanced colors, programmable slide timing, and sound synchronization (column 1, lines 35-40)."

At the time of invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Helot to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich to create a more dynamic presentation (column 1, lines 35-40). Therefore it would have been motivated to apply Helot's disclosure to Chao's device in view of Reinhard and further in view of Badalich.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmeister (7,025,466) in view of Chao (US 5442415) and Nashida (6,652,104) and Shirashi et al (6,231,191) an further in view of Reinhard (US 4,257,694) and Badalich (US 4,030,821) and Jarvis (3,310,360) .

With respect to claim 8, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich the lamp and projection device according to claim 1 as discussed above, but do not explicitly disclose wherein a micro switch is used to turn the device on or off as the hinged lid is opened.

Jarvis teaches wherein a micro switch is used to turn the device on or off as the hinged lid is opened (col.7, lines 1-20).

At the time of invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Jarvis to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich to improve the versatility of the device.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmeister (7,025,466) in view of Chao (US 5442415) and Nashida (6,652,104) and Shirashi et al (6,231,191) an further in view of Reinhard (US 4,257,694) and Badalich (US 4,030,821) and Burgess (4,184,755).

With respect to claim 9, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich the lamp and projection device according to claim 1 as discussed above, does not explicitly disclose wherein a folded and punched metal sheet supports the bulb unit and provides heat dispersion and venting.

Burgess discloses wherein a folded and punched metal sheet (fig. 6) supports the bulb unit and provides heat dispersion and venting. At the time of invention it would have been obvious to one of ordinary skill in the art to combine the teachings of

Burgess to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich to reduce manufacturing cost

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmeister (7,025,466) in view of Chao (US 5442415) and Nashida (6,652,104) and Shirashi et al (6,231,191) an further in view of Reinhard (US 4,257,694) and Badalich (US 4,030,821)and Kojima (6,561,656).

With respect to claim 13, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich the lamp and projection device according to claim 1 as discussed above, does not explicitly disclose further including a supporting digital device means comprising a digital micro mirror device and associated light filters, lenses, rotating color wheel and an electronic control system supported on said lamp body.

Kojima discloses a projector (figure 13) and a supporting digital device means (fig. 13, 5) comprising a digital micro mirror device (fig. 13, 5) and associated light filters (2), lenses (9,10,11,12), rotating color wheel (2) and an electronic control system (col .6, second paragraph).

At the time of invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Kojima to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich on said lamp body to improve the quality of the image.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmeister (7,025,466) in view of Chao (US 5442415) and Nashida (6,652,104) and Shirashi et al (6,231,191) an further in view of Reinhard (US 4,257,694) and Badalich (US 4,030,821) and Olsen et al. (6,830, 340).

Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich the lamp and projection device according to claim 1 as discussed above, does not explicitly disclose the device in combination with external connector sockets and connector slots to support removable digital data media for photograph or video content such that the overall device forms a digital photo projector cube.

Olsen teaches external connector sockets (fig. 1,17) and connector slots (fig. 1,22) to support removable digital data media (fig.l, 15) for photograph or video content (column 3, paragraph 4).

At the time of invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Olsen to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich such that the overall device forms a digital photo projector cube in order to improve its the versatility.

With respect to claim 15, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich discloses the lamp and projection device according to claim 1, Hoffmeister in view of Choa and Nashida and Shirashi and further

in view of Reinhard and Badalich does not explicitly disclose wherein said overall device forming a digital projector cube suitable for video, gaming and computer display output.

Olsen teaches external connector sockets (fig. 1,17) and connector slots (fig. 1,22) to support removable digital data media (fig.l, 15) for photograph or video content (column 3, paragraph 4).

At the time of invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Olsen to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich such that said overall device forms a digital projector cube suitable for video (column 3, paragraph 4), gaming and computer display output (see fig. 4; 60, 62, 68) in order to improve its the versatility.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmeister (7,025,466) in view of Chao (US 5442415) and Nashida (6,652,104) and Shirashi et al (6,231,191) an further in view of Reinhard (US 4,257,694) and Badalich (US 4,030,821) and Dickie (2005/0018426) .

With respect to claim 7, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich the lamp and projection device according to claim 1 as discussed above, but does not explicitly disclose where said faces are formed from a semi-translucent material so at to provide soft illumination through the cube faces, and easily formed by injection molding means.

Dickie teaches an entire structure from a semi-translucent material so at to provide soft illumination through the faces of a lamp body (0065).

At the time of invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Dickie to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich to improve the versatility of the device.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmeister (7,025,466) in view of Chao (US 5442415) and Nashida (6,652,104) and Shirashi et al (6,231,191) an further in view of Reinhard (US 4,257,694) and Badalich (US 4,030,821) and Omiya (6,498,903).

With respect to claim 7, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich disclose a lens (condenser lens discussed in claim 1), but do not disclose a lens is supported in a lens holder between vertical struts in the side-casing and connected through a punched groove in a side face to a control button to enable controlled vertical movement of the lens focusing.

Omiya teaches a lens (33) is supported in a lens holder (33b) between vertical struts (44) in a side-casing (see casing of 31b) and connected through a punched groove in a side face to a control button to enable controlled vertical movement of the lens focusing (see fig.2, 23).

At the time of invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Omiya to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich to improve the stability of lens .

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmeister (7,025,466) in view of Chao (US 5442415) and Nashida (6,652,104) and Shirashi et al (6,231,191) an further in view of Reinhard (US 4,257,694) and Badalich (US 4,030,821) (US 4,030,821), Gishi et al. (US 6,837,583) and Jarvis (3,310,360) and Burgess (4,184,755).

With respect to claim 16, Hoffmeister discloses a projection device (see the casing of fig.1) comprising a lamp body (via the housing the projector 16) consisting of six ***substantially*** faces (fig.1), one of said faces being an adjustable top face lid for the device (see lid 44) , the lid being hinged about one edge of the body (see fig.1) being a top face lid for the device having an interior mirrored surface (18) capable of reflecting and projecting an image; support structure for supporting an imaging device (36 which holds the projector and thereby hold an imaging device) and parts of an illumination and projection system and, an illumination and projection system consisting of at least one lamp or light- emitting unit and a condensing lens (implicitly disclosed by projector 16).

Hoffmeister does not disclose a plurality of reflecting mirrors, a top face lid to be positionable at a plurality of angles between a closed position and an open

perpendicular position and the image being projectable at various angles from vertical to horizontal according to said positioning of the top face lid a moveable condensing lens, at least one moveable condensing lens, an electrical transformer and switch.

Chao discloses a lamp and projection device comprising: a lamp body consisting of six faces (fig.3); one of said faces (17) being a top face lid for the device having an interior mirrored surface (7) capable of reflecting and projecting an image; support structure for supporting an imaging device (see figure 2,19 and see figure 1) and parts of an illumination and projection system (see figure 2); and an illumination and projection system (see figure 2) consisting of at least one lamp or light- emitting unit (1), a plurality of reflecting mirrors (see 12 and 15), and condensing lens (fig. 2,16).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the lamp body of Hoffmeister with the illumination and projection system of Choa to reduce the cost of Hoffmeister's device.

However, Hoffmeister in view of Chao does not explicitly disclose six substantially identical faces assembled to form a cube, at least one moveable condensing lens, an electrical transformer and switch and a top face lid to be positionable at a plurality of angles between a closed position and an open perpendicular position and the image being projectable at various angles from vertical to horizontal according to said positioning of the top face lid.

It would have been obvious to one of ordinary skill in the art to modify the device of Chao with the teaching of Hoffmeister so the lid is hinged about one edge of body to facilitate the transport of Chao's device (col.3, lines 20-25) .

Choa in view of Hoffmeister does not explicitly disclose the top face lid so as to be positionable at a plurality of angles between a closed position and an open perpendicular position, and having an interior mirrored surface capable of reflecting and projecting an image, image being projectable at various angles from vertical to horizontal according to said positioning of the top face lid.

Nishida discloses a projection device comprising a lamp body (by virtue of body the projector 800) a face (348) being an adjustable top face lid for the device (see fig.4 348 and 810) being hinged (810) so as to be positionable at a plurality of angles between a closed position and an perpendicular position and the image being projectable at various angles from vertical to horizontal according to said positioning of the top face lid (again see fig.4).

It would have been obvious at the time of invention to modify the device of Choa in view of Hoffmeister with the disclosure of Nishida to improve the operability of the device by increasing the range of projection.

Choa in view of Hoffmeister and Nishida does not explicitly disclose the lid having an open perpendicular position.

Shirashi discloses a projection device comprising a lamp body (by virtue of body the projector 100) a face (11) being an adjustable top face lid for the device (see fig) , the lid being hinged (see fig.1) so as to be positionable at a closed position (fig.1,11) and an open perpendicular position (fig.2, 11).

It would have been obvious to one of ordinary skill in the art to modify the device of Choa in view of Hoffmeister and Shirashi with the disclosure of Nashida to improve the operability of the device by increasing the range of projection.

However Choa in view of Hoffmeister and Shirashi and further in view of Nashida do not disclose the substantially identical faces forming a cube, at least one movable condensing lens, and an electrical transfer and switch.

Reinhard discloses a lamp and projection device (fig.3) comprising: a lamp body (fig. 3) consisting of a support structure for supporting parts of an illumination (fig.3, 24) and projection system (fig. 3); and an illumination and projection system consisting of at least one lamp (fig.2, 12) or light- emitting unit, a plurality of reflecting mirrors (fig.3; 7, 8) at least one condensing lens (fig.2, 11) and six substantially identical faces assembled to form a cube (column 1, paragraph 1).

It would have been obvious to one of ordinary skill in the art at the time of invention to use Reinhard's disclosure in Hoffmeister in view of Choa and Shirashi and Nashida 's device to make it more compact and reduce manufacturing cost.

Badalich discloses a lamp (fig.3, 28) and projection device (figure 3) comprising: a lamp body (see unnumbered structure containing (28)), a support structure (70, 61,62 and see unnumbered structure containing (28)) for supporting an parts of an illumination and projection system; and an illumination and projection system (see fig. 3) consisting of at least one lamp (28) or light- emitting unit, a plurality of reflecting mirrors (68, 64) at least one movable condensing lens (36) and an electrical transformer and switch (column 3, paragraph 4). wherein faces contain an molded support (Badalich: see fig. 3,

supporting 70) and grooves (Badalich: see fig.6, supporting 80) for fixing the parts of the illumination system where such grooves support various parts or are not used depending on their rotation and position as a cube face.

It would have been obvious to one of ordinary skill in the art at the time of invention to apply Badalich 's transformer, switch and movable condensing lens to Hoffmeister in view of Choa and Shirashi and Nashida 's device in view of Reinhard to utilize voltage efficiently (see column 3, paragraph 4) and improve the quality of the projected image.

Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich does not disclose wherein said faces contain recesses and protrusions at opposed edges such that they can be assembled by rotating appropriately and interlocked with similar parts in a cube arrangement.

Gishi discloses a projector and lamp body (see figure 3) faces contain recesses and protrusions at opposed edges (see figure 3;12, 11).

It would have been obvious at the time of invention to one of ordinary skill in the art to combine Gishi's teaching of faces containing recesses and protrusions at opposed edges to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich such that they can be assembled by rotating appropriately and interlocked with similar parts in a cube arrangement to reduce manufacturing cost.

Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich and Gish does not disclose wherein the top face lid acts to turn

the device on by means of a micro-switch when opened, parts of an illumination and projection system consisting of a folded sheet bulb holder, bulb.

Jarvis teaches wherein a micro switch is used to turn the device on or off as the hinged lid is opened (col.7, lines 1-20).

At the time of invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Jarvis to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich and Gish to improve the versatility of the device.

Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich and Gish and Jarvis does not disclose an illumination and projection system consisting of a folded sheet bulb holder, bulb.

Burgess discloses wherein a folded and punched metal sheet (fig. 6) supports the bulb unit and provides heat dispersion and venting.

At the time of invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Burgess to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich and Gish and Jarvis to reduce manufacturing cost.

Allowable Subject Matter

The indicated allowability of claims 7 and 11 are withdrawn in view of the newly discovered reference(s) to Dickie (2005/0018426) and Omiya (6,498,903). Rejections based on the newly cited reference(s) follow.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmeister (7,025,466) in view of Chao (US 5442415) and Nashida (6,652,104) and Shirashi et al (6,231,191) an further in view of Reinhard (US 4,257,694) and Badalich (US 4,030,821) and Dickie (2005/0018426) .

With respect to claim 7, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich the lamp and projection device according to claim 1 as discussed above, but does not explicitly disclose where said faces are formed from a semi-translucent material so at to provide soft illumination through the cube faces, and easily formed by injection molding means.

Dickie teaches an entire structure from a semi-translucent material so at to provide soft illumination through the faces of a lamp body (0065).

At the time of invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Dickie to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich to improve the versatility of the device.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffmeister (7,025,466) in view of Chao (US 5442415) and Nashida (6,652,104) and

Shirashi et al (6,231,191) an further in view of Reinhard (US 4,257,694) and Badalich (US 4,030,821) and Omiya (6,498,903).

With respect to claim 7, Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich disclose a lens (condenser lens discussed in claim 1), but do not disclose a lens is supported in a lens holder between vertical struts in the side-casing and connected through a punched groove in a side face to a control button to enable controlled vertical movement of the lens focusing.

Omiya teaches a lens (33) is supported in a lens holder (33b) between vertical struts (44) in a side-casing (see casing of 31b) and connected through a punched groove in a side face to a control button to enable controlled vertical movement of the lens focusing (see fig.2, 23).

At the time of invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Omiya to Hoffmeister in view of Choa and Nashida and Shirashi and further in view of Reinhard and Badalich to improve the stability of lens .

Claim 12 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 12, the patentable subject matter regards the formation of the housing such that side of the housing are luminous whereby recessed regions

passing almost all the way through the cube faces are used to provide stronger areas of illumination or shadows for the projection from the cube sides.

Response to Arguments

Applicant's arguments with respect to claim 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JERRY BROOKS whose telephone number is (571)270-5711. The examiner can normally be reached on Monday-Friday, 9 a.m.- 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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